IN THE SPECIFICATION:

On page 3, second full paragraph:

Furthermore, because the hours of sunlight can vary based upon weather as determined by ~~a weather satellite~~an artificial weather controlling apparatus, it is also required to make a change from the natural sunset time. Additionally, it is known that other environmental [[parameter]] parameters such as a wind velocity, temperature and illumination also influences an activity of insects.

On page 4, first paragraph;

The temperature is a parameter relating to an ecological system of insects as well as an environment parameter influencing evaporation of a chemical. As for a wind velocity and a wind direction, a chemical must be diffused much more in the case of installing a chemical diffusing apparatus on the upwind side than the case of installing the apparatus on the downwind side. Accordingly, the conventional chemical diffusion apparatus cannot optimally diffuse a chemical in accordance with a pattern of behavior of a noxious insect subject to extermination, weather, or a place of installing the chemical diffusion apparatus. Moreover, the conventional chemical diffusion apparatus is required to change a control mode of a chemical diffusing operation on the basis of the optimum diffusion condition [[at]] whenever the place of installation is changed. Similarly, in the case of changing a kind of a chemical, the control mode should be changed so as to correspond to a diffusion condition optimum

to the changed chemical. When a diffusing operation is carried out through computer control, for example, it is required to rewrite a control program for chemical diffusion in accordance with a change of a place of installation or a chemical. Accordingly, a change in place of installation and chemical cannot be easily performed.

On page 6, first paragraph:

(1) A main object of at least one embodiment of the invention is to provide a chemical diffusion system, a chemical diffusion apparatus, a chemical diffusion unit and a chemical cartridge, which are capable of diffusing a chemical such as an insect sex pheromone in the optimum time period or zone in accordance with a pattern of behavior of a noxious insect subject to extermination or an environment.

On page 6, second paragraph:

(2) Another main object of at least one embodiment of the invention is to provide a chemical diffusion system, a chemical diffusion apparatus, a chemical diffusion unit and a chemical cartridge, which are capable of easily corresponding to a change in place of installation.

On page 6, third paragraph:

(3) Further another main object of at least one embodiment of the invention is to provide a chemical diffusion system, a chemical diffusion apparatus, a chemical

diffusion unit and a chemical cartridge, which are capable of easily corresponding to a change in chemical.

On page 6, fourth paragraph:

(4) For the purpose of achieving the above main objects and other objects, a chemical diffusion apparatus in accordance with the invention is a chemical diffusion apparatus comprising: at least one chemical tank for reserving a chemical such as an insect sex pheromone; a discharging means for discharging the chemical from the chemical tank; and a diffusing means for diffusing the chemical discharged from the discharging means, wherein the controlling means carries out drive control by varying diffusion timing and/or discharge volume of the diffusing means on the basis of hours of sunlight or sunset time, which are varied in accordance with a season, latitude and longitude and control by ~~a weather satellite~~an artificial weather controlling apparatus.

On page 6, fifth paragraph:

In at least one embodiment of the invention, discharge timing and/or discharge volume are changed on the basis of hours of sunlight or sunset time. Accordingly, the optimum amount of chemical can be discharged in a time period or zone in which efficiency is highest.

On page 7, second full paragraph:

Further, a chemical diffusion apparatus in accordance with at least one embodiment of the invention comprises: an environment parameter detecting means; and a controlling means for controlling drive of the discharging means on the basis of a detection result of the environment parameter detecting means, wherein the environment parameter detecting means detects at least one environment parameter of a temperature, humidity, illumination, a wind direction, a wind velocity and a chemical concentration.

On page 7, third full paragraph:

In at least one embodiment of the invention, the environment parameter detecting means detects a temperature, a wind direction and the like, and then, the controlling means controls the discharging means on the basis of the above detection to discharge a chemical. Accordingly, a chemical can be diffused so as to be most effective for attraction in accordance with a behavior pattern of a subject noxious insect in the case of diffusing a communication disturbance agent for an insect sex pheromone or the like. This allows unnecessary chemical diffusion to be prevented, so that the maximum effect can be achieved with the least amount of chemical.

On page 8, first full paragraph:

In the above embodiment, arranging the chemical diffusion apparatus to comprise a time detecting means such as a timer or a radio timepiece and the controlling means to control drive of the discharging means on the basis of the time

detected by means of the time detecting means allows a time period or zone in which a noxious insect subject to extermination is active such as a time period or zone after sunset to be accurately detected.

On page 8, second full paragraph:

The chemical diffusion apparatus in accordance with at least one embodiment of the invention may be arranged to include a self-information memorizing means for holding at least information relating to a place of installation and the controlling means control drive of the discharging means operates on the basis of the information held in the self-information memorizing means. In the case of a chemical diffusion apparatus installed at a corner of a chemical diffusion place, which is the downwind side, for example, a chemical diffused on the upstream side flows thereto, and thus, little discharge volume is required. Contrary to the above, the discharged chemical flows to the downwind side when the chemical diffusion apparatus is installed on the upwind side, and therefore, the discharge amount of the chemical should be more than the usual case. The controlling means can carry out such control on the basis of location information held in the self-information memorizing means. As a result of the above, a chemical can be diffused evenly all over the subject area.

On page 8, last paragraph:

In the chemical diffusion apparatus according to at least one embodiment of the invention, it may be arranged that the chemical tank include plural tanks containing

respective chemical constituents that can be discharged from the respective tanks by means of the discharging means and mixed to form the various chemicals. It may also be arranged that the chemical tank include plural tanks reserving different chemicals and the discharging means be able to discharge chemicals from the respective tanks individually or simultaneously. In the case that a noxious insect subject to extermination is changed, for example, changing a mixing rate of the chemical constituents can correspond to the new insect. Also, discharging a different chemical from a tank different from a tank used up to that time can correspond to the new insect.

On page 9, first full paragraph:

Moreover, a chemical tank in accordance with at least one embodiment of the invention is preferably formed from a material capable of cutting off ultraviolet rays and/or oxygen. This allows oxidation and/or ultraviolet-rays deterioration of a chemical such as an insect sex pheromone to be prevented, so that an antioxidant or an ultraviolet-rays stabilizer are not required to be mixed with the chemical.

On page 10, last full paragraph:

Additionally, a chemical diffusion apparatus according to at least one embodiment of the invention comprises: a chemical cartridge used as the chemical tank; and a chemical diffusion unit using the chemical cartridge as a chemical supply source, wherein the chemical cartridge includes a chemical reservoir part for reserving

the chemical and a cartridge side memorizing means for memorizing at least one controlling parameter relating to the chemical diffusing operation, the chemical diffusion unit includes a cartridge mounting part for changeably mounting the chemical cartridge, the discharging means, the diffusing means, the environment parameter detecting means and the controlling means, and the controlling means controls drive of the discharging means on the basis of the controlling parameter memorized in the cartridge side memorizing means of the chemical cartridge mounted to the cartridge mounting part.

On page 11, last paragraph:

In at least one embodiment of the invention, a chemical cartridge changeably mounted to the chemical diffusion unit is used as a chemical supply source and the chemical cartridge is arranged to hold a controlling parameter for controlling the chemical diffusing operation. Accordingly, only changing the chemical cartridge is enough in order to diffuse a different chemical. When a new chemical cartridge is mounted, a system capable of executing a chemical diffusing operation satisfying the optimum chemical diffusion condition can be constructed in the chemical diffusion unit on the basis of the controlling parameter held in the new chemical cartridge. Thus, holding more controlling parameters in the chemical cartridge allows a change of a setting condition of the diffusing operation of the chemical diffusing unit to be made unnecessary or simplified in changing a chemical or changing a place of installing the chemical diffusion unit.

On page 14, last paragraph:

Moreover, the chemical diffusion apparatus according to at least one embodiment of the invention comprises: a chemical cartridge used as the chemical tank; and a chemical diffusion unit using the chemical cartridge as a chemical supply source, wherein the chemical cartridge includes a chemical reservoir part for reserving the chemical, the diffusing means and/or the chemical supply tube for connecting the chemical reservoir part with the diffusion means and the chemical diffusion unit includes at least a cartridge mounting part for changeably mounting the chemical cartridge, the environment parameter detecting means and the controlling means.

On page 15, first full paragraph:

In at least one embodiment of the invention, a chemical cartridge changeably mounted to the apparatus is used as a chemical supply source of the chemical diffusion unit. When the diffusing means is mounted to the chemical cartridge, changing the used chemical cartridge allows the diffusing means to be changed simultaneously. Accordingly, using the porous material or a fibriform material for the diffusing means basically requires no maintenance thereof since the chemical cartridge is changed together with the diffusing means. In the case that a chemical supply tube is mounted to a chemical cartridge, cleaning of the chemical diffusion unit is unnecessary when a kind of a chemical is changed since no chemical supply path is provided in the chemical diffusion apparatus. In addition, in the case that a diffusing means and a chemical supply tube are mounted to a chemical cartridge, the chemicals

do not contact with a component of the chemical diffusion unit. Accordingly, only changing the chemical cartridge into a necessary one is required when a kind of a chemical is changed.

Page 18, first full paragraph:

On the other hand, at least one embodiment of the invention relates to a chemical cartridge and a chemical diffusion unit, which respectively include the above structure.